## **CHAPTER 6**

## 'DO' PHASE - DESIGN RESPONSIBILITY

- 6-1. <u>General</u>. In addition to addressing the validity and accuracy of the design effort, the subject of design responsibility encompasses several other areas of professional accountability. These include both legal and financial accountability, state professional licensing issues, and the process of establishment and control of a unique and legally identifiable Engineer of Record. This chapter covers the Corps of Engineers policies concerning these issues. Appendix G presents the official position of the United States Government in addressing the doctrine of Federal Supremacy in regards to state professional registration requirements.
- 6-2. Engineer of Record. The Engineer of Record (EOR) is defined as the individual who is ultimately responsible and liable for the adequacy and safety of a design. ER 1110-345-53 covers the EOR responsibility for structural steel connections. EOR responsibility for all other structural design is covered by ETL 1110-3-447. For in-house designs, the Engineer of Record (EOR) is designated as the chief of the engineering function. A summary of the requirements of these documents is found in Appendix F.
- 6-3. <u>Design Liability</u>. Design liability is defined as legal and financial accountability for the adequacy and safety of a design. Design liability rests with the EOR.
- 6-4. <u>Design Responsibility</u>. Design responsibility means the final and total responsibility for assuring the correctness of design, specifically the adequacy and safety of the structure or system. Design responsibility also includes the element design liability.
- 6-5. <u>Direct Supervisory Control</u>. This is a term utilized by state boards of professional registration as an absolute requirement before a registered engineer may sign/seal professional work. It means that this individual has direct control or dominion over the work and has the ability to control the direction and scope of the project at any point in time. They are not required to perform all the drafting, calculations, reproduction, and computer techniques that can be done by others, but direct input, control and ability to change the documents must remain with the responsible professional engineer. They must be qualified professionally through experience or training to do the work. Finally, they may sign only that portion of the work developed by the registrant or under his/her immediate personal supervision.
- 6-6. <u>Professional Accountability</u>. Designation of the Chief of Engineering Division or other equivalent position as the EOR does not relieve the individual designer and checker from accountability for the adequacy and safety of their design. Accuracy and quality of design effort will always serve as a factor in each designer's performance evaluation. Design accountability must always rest with those individuals who are performing and/or checking the actual design calculations or making critical decisions relevant to the project. For A-E developed products FAR Clause 52.236-23, "Responsibility of the Architect Engineer Contractor" clearly defines the responsibility of the A-E in performing work.

- 6-7. <u>Procedures for Signature and Indication of Registration</u>. The procedures for signature and indication of registration are:
  - a. Professional Registration. USACE requirements for professional registration for key technical management positions are identified in ER 1110-1-8152. USACE does not, however, require that registration be in any particular state. Requirements for professional registration for additional key positions are under continuous consideration in HQUSACE. Appendix G provides a detailed summary of a HQUSACE legal analysis of Federal Supremacy issues concerning state's authority to require professional registration for Federal projects. Under the doctrine of Federal Supremacy, USACE is not required to comply with state requirements except in those situations where Congress has waived the Federal Government's Supremacy. In the case of six environmental statutes (identified in Appendix G) Congress has waived Federal Supremacy and the Federal government must comply with state substantive requirements, permits and certifications. While this concession does not specifically address professional registration, Districts and RBCs are directed to cooperate with states in the spirit of partnership, while not unduly compromising Federal Supremacy. This wording implies that the use of professional stamps for design projects covered by any of these six environmental statutes (while not specifically a legal requirement) may be politically expedient.
  - b. Responsibility. District Chiefs of Engineering or equivalent position (or their designated deputies) will sign and date all in-house design documents and associated certifications, as well as all appropriate permit applications executed by the USACE. District Chiefs of Construction and Construction-Operations or equivalent position (or their designated deputies) will sign and date certifications required during or after construction. Districts are encouraged to contact HOUSACE for guidance concerning unusual situations. The responsible professional's signature will be followed by "P.E." (Professional Engineer), "R.A." (Registered Architect), or another appropriate designation indicating that the signer is currently a registered professional. All documents may be sealed or stamped, rather than using the "P.E." or "R.A." designation, at the discretion of the District. This responsibility may be further delegated to appropriate subordinate senior registered professionals. When a District Chief (or deputy) is not a registered professional, this responsibility will be delegated to appropriate senior registered professionals. Any delegation must be reflected in the individual registered professional's position description and in specific written District procedures. Individuals signing in accordance with this paragraph are required to do so within the scope of their employment.
  - c. Architect–Engineers. A-E contracts will require the contractor to sign and stamp or seal and date at least one set of design documents, permit applications or certifications. The deliverables under each contract for A-E design services will include: one set of properly signed, stamped or sealed and dated drawings; a certified cover document showing for each discipline the name and stamp or seal of the professional who supervised the work, and the date each stamp or seal was affixed; or an electronic signature that indicates for each discipline the name, stamp or seal of the professional who supervised the work, and the date each stamp or seal was affixed.